



1. Selection of diameter size

a. For flanges with groove: In most cases, a groove is required to place the cord and keep the sealing strip in position. The diameter of the round cord must be selected in a way that it is at least twice the depth of the groove to ensure sufficient pressing.

b. For tongue and groove flanges: The diameter of the round cord should be equal to the groove width.

2. Installation

2.1 Installation of sealing cord with diameter of 2,5 and 4 mm by overlapping:

a. Preparing the flange

- Open the flange connection by a minimum of 15 cm.
- Sealing surface should be cleaned of old sealing materials and checked for damage.

b. Applying the sealing tapes

Position the start of the sealant tape close to a bolt hole in the groove (figure 1).

c. Closing the sealing tape

- Complete the installation by overlapping both ends at the starting bolt hole.
- Use a sharp knife or a pair of scissor to cut away the excess material, leaving 1 cm protruding material (figure 2).

2.2 Installation of sealing cord with diameter of 6, 8, 10 and 16 mm by a skive cut:

Perform step 2.1 a and 2.1 b but with a skive cut on both ends.

a. Skive cut at the beginning

- Unwind around 0,5m of the sealing tape and cut the end with a sharp knife by using the skive cut technique → length of the skive cut (l_s) = approx. 15 - 20 mm with an angle α approx. 30° (figure 3).

b. Closing skive cut

- Complete the installation by overlapping the sealing tape over the skived end and mark the start and end points for the second skive cut (figure 4).
- Cut away excess material that the interface shows the same height as the original sealing tape (figure 5).

Note: When the round cord has a diameter > 4 mm the skive cut technique must be used since there is not enough force to compress the double thickness of the overlap joint. The skive cut technique can be always used as an alternative to the overlap technique if you are uncertain.

2.1. b Applying the sealing tape

2.1. c Closing the sealing tape

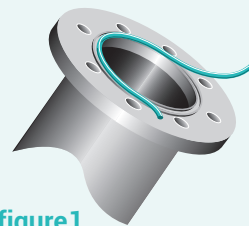


figure 1

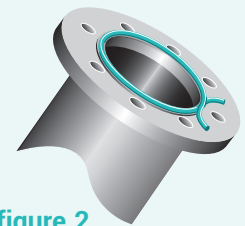


figure 2

skive cut

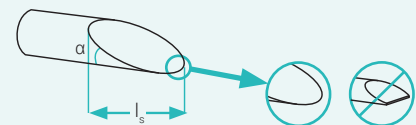


figure 3

end point (ensure full thickness of bottom layer)

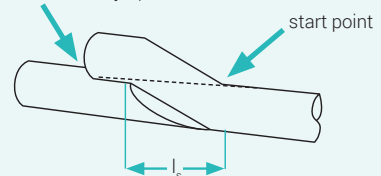


figure 4

excess material

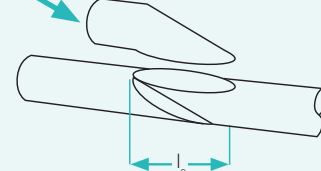


figure 5

2.3 Installation of sealing cord by blunt assembly of the ends:

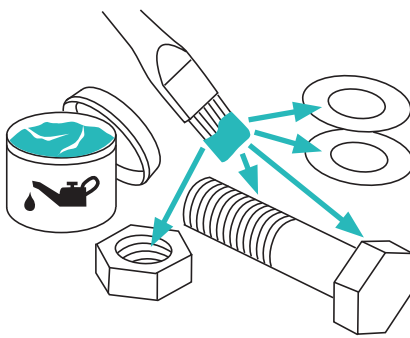
- Perform step 2.1 a and 2.1 b
- Use a sharp knife or a pair of scissor to cut the end of the round cord straight.
- Put the two blunt ends together and compress the sealing tape as you place it (figure 6).



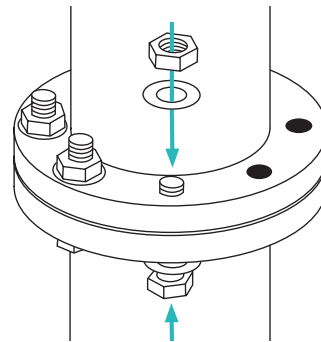
figure 6

Note: This method is only to be used for container lids with only low requirements on tightness, e.g. splash protection or pressureless processing.

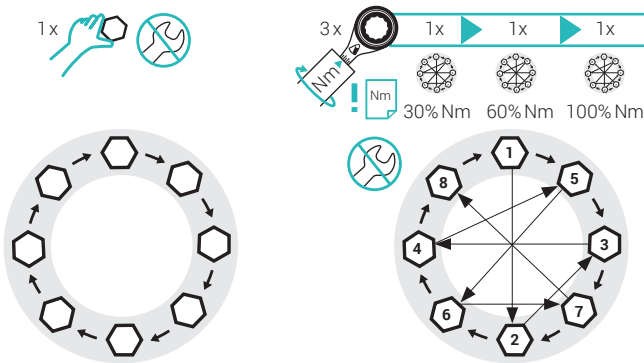
3. Torquing



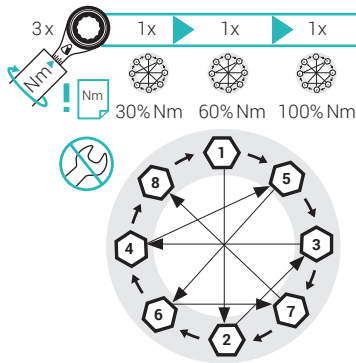
1. Lubricate all connecting and fastening elements (screws, nuts and washers).



2. Install screws, nuts and washers on the flange.

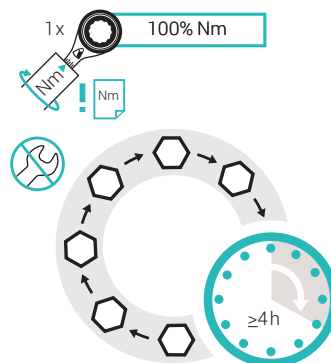


3. The screws are initially hand tightened in a sequential circular pattern.

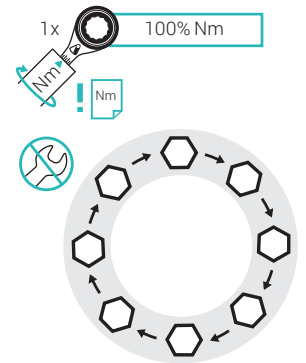


4. Tighten the screws crosswise in three phases by using a calibrated torque:

- 1st pass: 30% of target torque
- 2nd pass: 60% of target torque
- 3rd pass: 100% of target torque



5. Tighten the screws crosswise with 100% of the torque and wait for 4 hours.



6. For final installation retighten the screws crosswise until the required torque is reached.

For further details on gasket installation, please refer to the ESA/FSA Guidelines for safe seal usage – Flanges and Gaskets, available from the Fluid Sealing Association and the European Sealing Association.

